Arizona Forecast: More of the Same in '89, '90

Given an outlook for a weaker national economy in 1989 and 1990, the Arizona Economic Forecasting Model (AEFM) indicates the state's economy will resemble 1988, with enough jobs created to prevent a statewide recession during the next two years. A total of 24,200 jobs, a 1.7 percent rise, are expected to be created in 1989 and 35,800 jobs, a 2.5 percent increase, in 1990.

In the near-term the outlook for Manufacturing remains virtually the same, particularly in light of an expected reduction in defense spending and the likelihood of higher interest rates.

With higher interest rates the dollar probably will become stronger in the world currency market, making U.S. goods more expensive abroad. However, the dollar is expected to fall in the long-term, and both U.S. and Arizona manufacturers are expected to grow at a much healthier rate. Employment in Arizona's Manufacturing sector is expected to grow 1 percent in 1988 and 1.9 percent in 1990.

The environment that surrounds Construction will remain more or less the same, with one additional hurdle. In the coming months short-term, as well as long-term, interest rates are expected to edge upward due to the Federal Reserve Bank's reaction to recent higher inflation.

Higher interest rates do not bode well for Construction, especially its single-family housing sector. Also, recent statistics show vacancy rates in multifamily housing and retail space have not come down to a level where investors are likely to make large new commitments. Due to these factors, employment in Construction is expected to decline 6.5 percent in 1989, followed by a 1 percent gain in 1990.

Along with Construction, the finance and real estate sectors will be affected by higher interest rates in the near-term. Department of Eco-

(Continued on page 7)

Table 2

ARIZONA ECONOMIC FORECASTS
(Annual Averages, In Thousands)

	1988	Growth Rate	1989	Growth Rate	1990	Growth Rate
Labor Force	1,654.0	2.6%	1,703.0	3.0%	1,762.6	3.5%
Unemployed	104.0	3.0	113.8	9.4	113.7	-0.1
Unemployment Rate	6.3%	—	6.7%	—	6.5%	—
Total Employment	1,550.0	2.6	1,589.2	2.5	1,649.0	3.8
Total Wage and Salary Employment	1,410.6	1.6%	1,434.8	1.7%	1,470.6	2.5%
Manufacturing	189.9	1.3	191.8	1.0	195.4	1.9
Mining	12.0	5.3	12.6	5.0	12.9	2.4
Construction	93.9	-9.0	87.8	-6.5	88.7	1.0
TCPU*	72.7	1.4	73.8	1.5	75.1	1.8
Trade	347.5	2.1	355.5	2.3	364.1	2.4
FIRE**	93.3	-1.3	90.5	-3.0	91.8	1.4
Services	361.2	4.6	375.4	3.9	389.0	3.6
Government	240.3	3.6	247.4	3.0	253.6	2.5

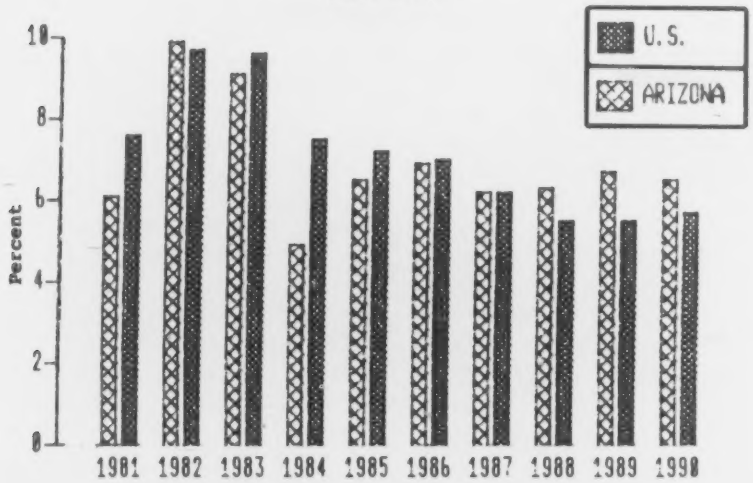
* TCPU = Transportation, Communications, and Public Utilities.
** FIRE = Finance, Insurance, and Real Estate.

Notes: Totals may not be exact due to rounding.
NA = Data not available at time of printing.

Source: Arizona Department of Economic Security, Research Administration, February 1989.

Figure 3

Arizona vs. United States
Civilian Unemployment Rates
(1981-1990)



Sources: Arizona Department of Economic Security, Research Administration, and U.S. Bureau of Labor Statistics, February 1989.

nomic Security, Research Administration, expects Finance, Insurance, and Real Estate (FIRE) employment to decline 3 percent in 1989, then rebound with a 1.4 percent gain in 1990.

On the plus side, the service-providing sectors -- Services; Trade; Transportation, Communications, and Public Utilities (TCPU); and Government -- should continue to expand at a fairly healthy rate in 1989 and 1990.

Services alone should create 27,800 jobs in the two-year forecast period. Divisions within Services expected to provide most of the employment gains are: hotels, motels, and lodging places; business services; and personal services.

Trade should also create a large number of jobs (8,000) in 1989, then follow up with 8,600 jobs in 1990. Growth in Trade will primarily come from food stores, followed by department stores, and eating and drinking places.

Also on the positive side, TCPU should add 1,100 jobs in 1989 and 1,300 in 1990. Most of TCPU employment opportunities will be in the transportation sector. Public utilities are expected to experience little change in employment levels because of the slowdown in labor force growth and a tougher regulatory climate in Arizona.

At the substate level, Maricopa County is expected to create 16,100 jobs in 1989 and 23,600 jobs in 1990. Pima County is expected to create 2,900 jobs in 1989, 5,700 in 1990. An additional 5,200 jobs are forecasted for Nonmetropolitan Counties in 1989, 6,500 in 1990. Nonmetropolitan counties that have both tourism and Manufacturing as their economic base should contribute most of the rural-area job growth.

Overall, Arizona's economic activity in 1989 will mirror that of 1988, with greater job growth expected in 1990 and beyond. The unemployment rate, however, will increase slightly to an annual rate of 6.7 percent in 1989, then taper downward to 6.5 percent in 1990.

--Jalal Ahmad

Figure 4

Arizona Wage and Salary Employment Growth Rates (1981-1990)

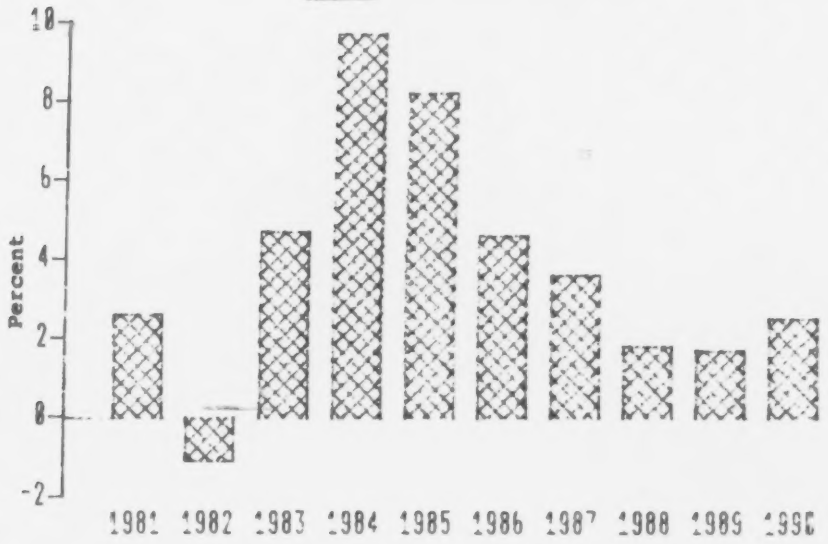
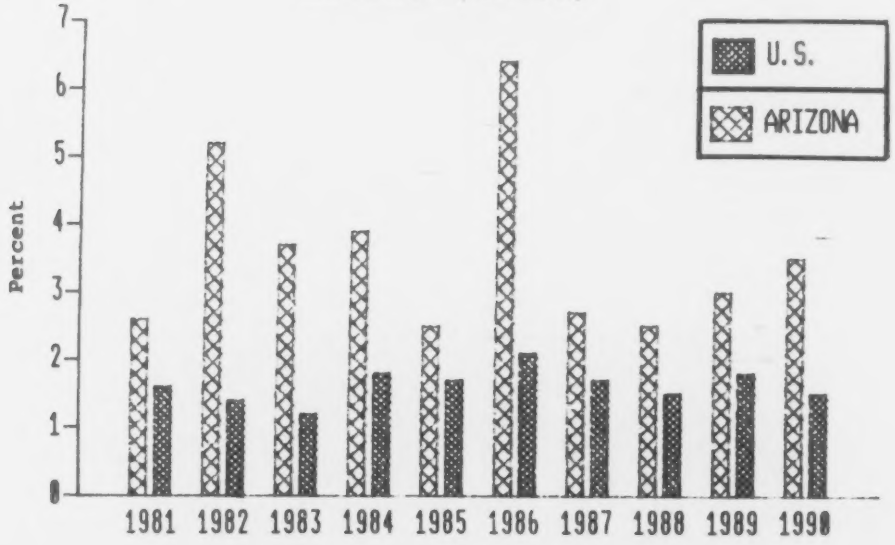


Figure 5

Arizona vs. United States Civilian Labor Force Growth Rates (1981-1990)



Sources: Arizona Department of Economic Security, Research Administration, and U.S. Bureau of Labor Statistics, February 1989.

Slow Growth, Not *No* Growth Expected in Maricopa County For Immediate Future

The latter part of 1988 saw a flood of controversy, as political leaders, economic developers, and business writers took exception to bad-mouthing of the Valley economy.

Articles in national and neighboring-state newspapers declaring the Phoenix-area economy went bust brought forth cries for something to be done. The stories chastised developers as modern-day robber barons preying upon unsophisticated local and state governments in their speculative quest to turn cheap agricultural and desert land into Taj Mahal tracts. As a result, the articles said, Phoenix's economy of growth, by growth, and for growth was possessed of a cancer that would soon, if it hadn't already, kill its host.

Did the 1988 Maricopa County economy merit all that melodrama? Only if you believe Phoenix should always be among America's fastest-growing metropolitan areas.

Although area leaders didn't buy the doomsayers' prognosis, they called for more economic development to restore the patient to its former condition as a national champion of growth.

Did the 1988 Maricopa County economy merit all that melodrama? Only if you believe Phoenix should always be among America's fastest-growing metropolitan areas.

The Maricopa County economy did grow, albeit at less than the top national-ranking rates of 1983, 1984, and 1985. Nonfarm wage and salary employment increased 1.9 percent, adding 17,500 jobs.

Services was, as usual, the sector making the greatest contributions to wage and salary employment. Services had two-and-a-half times (5 percent) the overall wage and salary-employment growth rate and accounted for 11,900 new jobs.

Within Services, hotel and other lodging places posted its highest growth rate since 1978, 13.4 percent, adding 2,800 jobs. This solid expansion followed a year of similar growth when 2,400 jobs were added and the hotel industry had a 13 percent growth rate. The last two years have seen the opening of major new resorts in Phoenix, including the lavish Phoenician, and the Esplanade's Ritz Carlton.

While hotels have been growing at near-record rates, business services and health services have been growing at less-than-average rates (2.8 and 5.1 percent) for their industries.

Trade contributed, as well as Services, to job growth in 1988, although at much lower rates. Trade added 4,200 jobs, of which 3,300 were in retail trade. Within retail trade, eating and drinking places grew more slowly than in any year since the 1982 recession.

The remaining growth-contributing industries were Government; Manufacturing; and Transportation, Communications and Public Utilities (TCPU).

Government posted an average year with 3 percent growth (3,600 jobs). Manufacturing had a less-than-aver-

(Continued on page 10)

Table 3

MARICOPA COUNTY ECONOMIC FORECASTS
(Annual Averages, In Thousands)

	1988	Growth Rate	1989	Growth Rate	1990	Growth Rate
Labor Force	1,027.7	NA	1,059.6	3.1%	1,098.8	3.7%
Unemployed	52.5	NA	57.2	9.0	57.1	-0.2
Unemployment Rate	5.1%	—	5.4%	—	5.2%	—
Total Employment	975.1	NA	1,002.4	2.8	1,041.7	3.9
Total Wage and Salary Employment	931.3	1.9%	947.4	1.7%	971.0	2.5%
Manufacturing	138.3	1.9	140.7	1.7	143.4	1.9
Mining	0.7	16.7	0.7	0.0	0.8	14.3
Construction	64.6	-7.6	60.7	-6.0	61.5	1.3
TCPU*	50.3	2.7	51.3	2.0	52.3	2.0
Trade	235.7	1.8	240.8	2.2	246.4	2.3
FIRE**	74.3	-0.8	72.1	-3.0	73.2	1.5
Services	243.9	5.1	254.2	4.2	263.8	3.8
Government	123.6	3.0	126.8	2.6	129.6	2.2

* TCPU = Transportation, Communications, and Public Utilities.
** FIRE = Finance, Insurance, and Real Estate.

Notes: Totals may not be exact due to rounding.
NA = Data not available at time of printing.

Source: Arizona Department of Economic Security, Research Administration, February 1989.

age year, growing 1.9 percent (2,600 jobs). Probably thanks to the dollar's decline, machinery manufacturing had its first gain in four years, picking up 1,500 jobs, a 2.9 percent growth rate.

TCPU grew a respectable 2.4 percent, adding 1,200 jobs, but nothing like its exceptional rate of 11.8 percent (5,200 jobs) in 1987. Several of the major communications companies were adding staff in that year.

Unfortunately, not all of the economic news in 1988 was positive for Maricopa County, as evidenced by the decline of some of the previously stellar-performing industries.

Construction was the chief downside culprit, losing 5,300 jobs. Construction's decline in 1988 was the third year of annual-average decline, although the rate of decline slowed from 1987 (Table 3).

As interest rates climbed, Finance, Insurance, and Real Estate (FIRE) joined Construction on the toboggan run, dropping 600 jobs. Losses were in the real estate and finance divisions of FIRE. Finance lost jobs as the industry adjusted to major growth from deregulation, and as interest rates rose again, reducing demand for mortgage refinancing. Real estate employment declined in response to slower building activity.

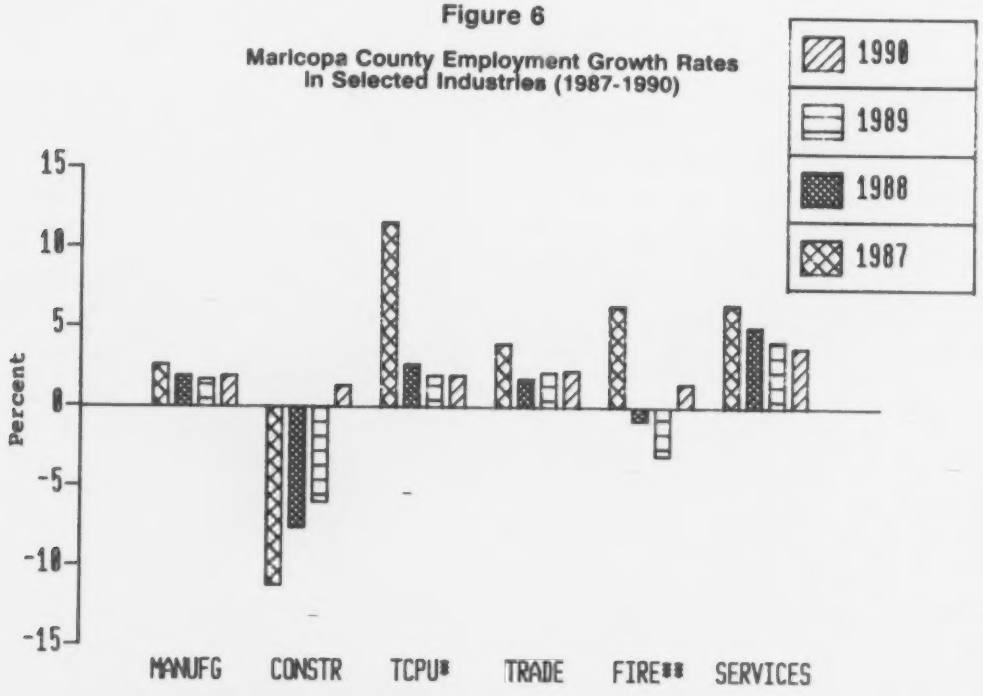
Outlook remains the same

The near-term outlook portends another year like 1988. Given an outlook of moderate, but slowing, national growth due to rising interest rates (from tightening credit policy by the Federal Reserve), Maricopa County's total nonfarm wage and salary employment is expected to grow only 1.7 percent in 1989. A slight improvement is anticipated in

(Continued on page 11)

Figure 6

Maricopa County Employment Growth Rates In Selected Industries (1987-1990)



‡ Transportation, Communications, and Public Utilities
‡‡ Finance, Insurance, and Real Estate

Sources: Arizona Department of Economic Security, Research Administration, and U.S. Bureau of Labor Statistics, February 1989.

1990, with a wage and salary-employment growth rate of 2.5 percent.

The Maricopa County unemployment rate will rise moderately this year. On an annual-average basis, it's expected to reach 5.4 percent in 1989, then drop slightly to 5.2 percent in 1990. Many economists would call this within the range of full employment, although the Phoenix area has experienced rates as low as 3.5 percent as recently as 1984. The 5.4 percent rate represents total unemployed of 57,200.

A milestone is anticipated for Maricopa County total employment in 1989. For the first time it will rise above the million mark, averaging 1,002,400. In 1990 total employment will rise an additional 3.9 percent to 1,041,700.

While the Phoenix-area labor force (the sum of employed and unemployed) climbed to a million souls in 1987, labor force growth slowed in 1988. The labor force is expected to grow at rates of 2.9 and 3.7 percent in 1989 and 1990.

Construction will continue to be the major drag on the Maricopa County economy in 1989. A loss of an additional 3,900 jobs is forecasted for 1989. But before the year is over Construction will have bottomed out, and by 1990 Construction will be on the mend, gaining 800 jobs.

(Recognize this scenario assumes no national recession in the next two years. It also assumes only a moderate money supply crunch by the Federal Reserve in response to ris-

(Continued on page 12)

ing inflation. These events are presently advanced by Wharton Econometric Forecasting Associates as having the greatest probability. With no national recession, area population and business growth will be sufficient to allow adequate absorption of overbuilt multifamily housing and commercial space, which will invite additional construction investment. Availability of both foreign and domestic capital -- looking for a safe haven from perceived riskier investments in stocks and bonds -- will also contribute to rebound in real estate and construction.)

During this year, before construction rebounds, FIRE will lose another 2,100 jobs. By 1990 1,100 of these jobs will be regained. Thereafter, FIRE will grow more in relation to its historic average, at rates closer to the growth rate of the population. By then the finance industry will have sufficient experience with deregulation and multistate banking to better predict its employment needs. There will also be a rebounding demand for real estate sales personnel as new stock is built.

Manufacturing's growth rate will decline to 1.7 percent, but that still means 2,400 factory jobs will be added in 1989. Manufacturing's 1.9 percent growth rate in 1990 will equal 1988's, generating 2,700 new jobs.

Defense spending to hurt Manufacturing

Two high-tech manufacturing components -- aircraft and missiles, and machinery -- will grow even more slowly than Manufacturing as a whole, because defense spending is expected to be flat or decline. The chemicals manufacturing industry has had double-digit rates of growth during the past two years and will have the highest growth rate among Manufacturing's components, 8 percent in 1989. Chemical manufacturers will add 350 jobs in Maricopa County.

As for the strongest sector, Services will grow by the greatest rate and add the most jobs among the major industry groups in 1989. Its rate of growth will be 4.2 percent (10,300 jobs) or two-thirds of all the wage and salary jobs added.

Hotels and other lodging places will still be growing at the greatest rate (9 percent) among the service-industry components, although the industry's growth rate will be down from the 13-plus percent rates of the last two years. Hotel employment growth rates will slow after 1990, but in the next two years more than 3,600 hospitality-industry jobs will be added to the Maricopa County economy.

Health services growth, too, will slow, but will still add 5,000 jobs over the next two years. Business services, which had been growing like gangbusters from 1982 to 1985, has slowed 3 to 4 percent, which will continue into 1989 and beyond.

Trade follows Services in contributions to area jobs. That will continue to be true with Trade adding 5,100 jobs this year and 5,600 in 1990, or just better than 2 percent each year.

Maricopa County's fastest growing Trade component is retail food stores. Food stores have grown in the 6 percent range over the last two years and will still be growing at a 4.6 percent rate in 1989. Research Administration expects food store growth rates to fall to a 3.5 to 4.5 percent growth rate in 1990 and thereafter. (The food store industry has become extremely competitive in the Phoenix area in recent

(Continued on page 22)

The Arizona Labor Force in January

Arizona's unemployment rate held steady at 5.8 percent as the new year began. Although the number of unemployed increased by 8,100 in January, and total employment declined 6,400, Arizona experienced the first December-to-January labor force growth (1,700) in five years.

Remarkably, labor force growth since January 1988 was the best it has been in 10 years. Despite falling from a peak in October, the labor force grew 88,400 from January 1988 to January 1989, a jump of 5.5 percent, the largest growth rate since 1979-1980's 7.8 percent.

While only 13,400 wage and salary jobs were added over the year, total employment ballooned by 76,200. Growth of that magnitude (5 percent) is the best Arizona has experienced since 1983-1984 (9.6 percent).

Total employment, which includes agricultural workers, self-employed, unpaid family workers, and domestic workers, is counted by place of residence. Nonagricultural wage and salary employment does not include these groups and is counted by place of work.

Arizona's wage and salary employment declined as usual between December and January but only by 23,800 (1.7 percent), a less-than-average loss. This year's loss was nothing like the January 1988 slide when nearly 42,000 Arizona workers started the new year by polishing up their resumes.

In fact, this January's over-the-month losses in several major industries are half or less than half those of a year ago. The following industries had substantially smaller January declines than last year: Construction; Transportation, Communications, and Public Utilities (TCPU); Finance, Insurance, and Real Estate (FIRE); Trade; and Services.

Does that imply the worst is behind us when it comes to declines in Arizona employment? The jury is still out.

Construction firms laid off 3,200, continuing the industry's 31-month slide. Since January's Producer Price Index rose a full percentage point, and the Federal Reserve reacted to inflationary fears by selling securities, it's certain that interest rates will rise. That is likely to mean Construction will continue to lose employment in the months ahead.

FIRE continued into its second year of decline, losing 300 jobs. Although its rate of decline is diminishing, FIRE has lost 3,300 jobs since January 1988. Its rate of decline may rise again when the full effects of the current interest rate rise are realized.

Manufacturing lost 1,000 jobs in January. Machinery manufacturing had losses of 400 and manufacturing of nondurable goods lost another 400, principally in chemicals and food. Nevertheless, it was not a bad January for Manufacturing by recent historical standards, declining only two-thirds of the average since 1981-1982. While Manufacturing as a whole has remained relatively flat over the last two years, defense-related business has declined while consumer goods business has increased.

The post-Christmas season layoffs this year were only a fraction of Christmas' past. Trade dropped 6,200, of which 6,100 were in retail trade. Last year 11,800 retail trade workers were laid off after Christmas, and in January 1987, 7800

(Continued on page 18)

January 1989 (in thousands)

	Arizona				
				Amount Change	
	Jan.* 1989	Dec. 1988	Jan. 1988	Dec.- Jan.	1988- 1989
TOTAL CIVILIAN LABOR FORCE**	1684.8	1683.1	1596.4	+1.7	+88.4
Total Unemployment	98.1	90.0	85.9	+8.1	+12.2
Rate	5.8	5.3	5.4	----	----
Rate (Sea. Adj.)***	5.8	5.8	5.4	----	----
Total Employment	1586.7	1593.1	1510.5	-6.4	+76.2

The Above Labor Force Statistics Should N

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1411.0	1434.8	1397.6	-23.8	+13.4
Manufacturing	188.8	189.8	187.9	-1.0	+0.9
Durable Goods	145.7	146.2	145.6	-0.5	+0.1
Stone, Clay, and Glass	7.5	7.7	7.8	-0.2	-0.3
Primary and Fabricated Metals	15.9	15.8	15.3	+0.1	+0.6
Primary Metals	7.6	7.5	7.3	+0.1	+0.3
Fabricated Metals	8.3	8.3	8.0	+0.0	+0.3
Machinery	65.4	65.8	65.7	-0.4	-0.3
Other Durable Goods	56.9	56.9	56.8	+0.0	+0.1
Aircraft and Missiles	26.1	26.2	26.8	-0.1	-0.7
Lumber and Wood Product (Excluding Furniture)	8.4	8.4	8.0	+0.0	+0.4
All Other Durable Goods	22.4	22.3	22.0	+0.1	+0.4
Nondurable Goods	43.1	43.6	42.3	-0.5	+0.8
Food and Kindred Products	9.2	9.4	9.1	-0.2	+0.1
Apparel	4.5	4.5	4.7	+0.0	-0.2
Printing and Publishing	16.6	16.8	16.4	-0.2	+0.2
All Other Nondurable Goods	12.8	12.9	12.1	-0.1	+0.7
Mining and Quarrying	12.2	12.1	11.6	+0.1	+0.6
Copper Mining	9.0	8.9	8.6	+0.1	+0.4
Other Mining and Quarrying	3.2	3.2	3.0	+0+0	+0.2
Construction	89.4	92.6	92.7	-3.2	-3.3
Trans., Communications, & Public Utilities	72.2	73.1	73.1	-0.9	-0.9
Transportation	36.5	37.2	37.1	-0.7	-0.6
Communications and Public Utilities	35.7	35.9	36.0	-0.2	-0.3
Trade	353.1	359.3	346.6	-6.2	+6.5
Wholesale Trade	68.5	68.6	67.2	-0.1	+1.3
Retail Trade	284.6	290.7	279.4	-6.1	+5.2
General Merchandise and Apparel	44.9	48.5	44.9	-3.6	+0.0
Food Stores	48.2	48.8	46.3	-0.6	+1.9
Automotive and Service Stations	34.4	34.4	32.8	+0.0	+1.6
Eating and Drinking Places	98.1	99.0	96.7	-0.9	+1.4
Other Retail Trade	59.0	60.0	58.7	-1.0	+0.3
Finance, Insurance, and Real Estate	91.2	91.5	94.5	-0.3	-3.3
Services and Miscellaneous	363.2	363.2	357.0	+0.0	+6.2
Hotels and Other Lodging Places	41.3	41.2	40.1	+0.1	+1.2
Business Services	77.1	77.8	76.7	-0.7	+0.4
Health Services	91.7	91.6	89.6	+0.1	+2.1
Other Services	153.1	152.6	150.6	+0.5	+2.5
Government	240.9	253.2	234.2	-12.3	+6.7
Federal	43.6	44.0	43.0	-0.4	+0.6
State and Local	197.3	209.2	191.2	-11.9	+6.1
School	108.6	120.2	107.4	-11.6	+1.2

* Preliminary

** Labor force, unemployment, and employment are reported by place of residence.

*** Normal seasonal variations have been eliminated to reflect underlying economic trends.

January 1989 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			Amount Change					Amount Change	
Jan.* 1989	Dec. 1988	Jan. 1988	Dec.- Jan.	1988- 1989	Jan.* 1989	Dec. 1988	Jan. 1988	Dec.- Jan.	1988- 1989
1042.4	1041.9	993.7	+0.5	+48.7	319.9	319.8	303.9	+0.1	+16.0
50.8	46.8	44.9	+4.0	+5.9	15.7	14.2	13.8	+1.5	+1.9
4.9	4.5	4.5	----	----	4.9	4.4	4.5	----	----
4.8	4.7	4.4	----	----	4.8	4.5	4.4	----	----
991.6	995.1	948.8	-3.5	+42.8	304.2	305.6	290.1	-1.4	+14.1

Be Used for Economic Assistance Programs

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

929.2	943.0	924.8	-13.8	+4.4	248.9	252.9	246.9	-4.0	+2.0
137.8	138.2	136.5	-0.4	+1.3	29.7	30.0	30.9	-0.3	-1.2
107.8	107.9	106.8	-0.1	+1.0	23.9	24.1	25.3	-0.2	-1.4
5.0	5.1	5.2	-0.1	-0.2					
10.5	10.5	10.1	+0.0	+0.4					
52.4	52.5	52.4	-0.1	+0.0					
39.9	39.8	39.1	+0.1	+0.8					
30.0	30.3	29.7	-0.3	+0.3	5.8	5.9	5.6	-0.1	+0.2
5.9	6.0	6.0	-0.1	-0.1					
3.5	3.4	3.4	+0.1	+0.1					
11.7	11.8	11.7	-0.1	+0.0					
8.9	9.1	8.6	-0.2	+0.3					
0.7	0.8	0.7	-0.1	+0.0	2.0	1.9	1.7	+0.1	+0.3
61.6	63.6	63.7	-2.0	-2.1	16.2	16.9	17.5	-0.7	-1.3
50.3	50.9	50.8	-0.6	-0.5	9.0	9.2	9.2	-0.2	-0.2
26.9	27.4	27.0	-0.5	-0.1	4.5	4.7	4.8	-0.2	-0.3
23.4	23.5	23.8	-0.1	-0.4	4.5	4.5	4.4	+0.0	+0.1
239.0	242.7	235.8	-3.7	+3.2	57.7	59.2	57.1	-1.5	+0.6
54.9	54.9	53.5	+0.0	+1.4	6.8	6.9	7.0	-0.1	-0.2
184.1	187.8	182.3	-3.7	+1.8	50.9	52.3	50.1	-1.4	+0.8
28.2	30.3	29.4	-2.1	-1.2	7.8	8.6	7.7	-0.8	+0.1
31.3	31.8	29.7	-0.5	+1.6	8.2	8.3	8.2	-0.1	+0.0
21.8	21.7	20.6	+0.1	+1.2	5.5	5.5	5.4	+0.0	+0.1
63.1	63.7	62.3	-0.6	+0.8	18.2	18.4	18.2	-0.2	+0.0
39.7	40.3	40.3	-0.6	-0.6	11.2	11.5	10.6	-0.3	+0.6
72.6	72.8	75.3	-0.2	-2.7	12.0	12.0	12.3	+0.0	-0.3
244.5	244.9	241.2	-0.4	+3.3	68.7	68.2	67.6	+0.5	+1.1
24.9	24.7	24.5	+0.2	+0.4	6.7	6.7	7.0	+0.0	-0.3
60.2	60.8	60.5	-0.6	-0.3	11.6	11.7	11.4	-0.1	+0.2
59.8	59.7	58.7	+0.1	+1.1	19.7	19.6	19.2	+0.1	+0.5
99.6	99.7	97.5	-0.1	+2.1	30.7	30.2	30.0	+0.5	+0.7
122.7	129.1	120.8	-6.4	+1.9	53.6	55.5	50.6	-1.9	+3.0

NOTE: Prepared by the Arizona Department of Economic Security, Research Administration, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

Nonmetropolitan Counties
Labor Force and Employment
January 1989

	Apache	Cochise	Coco-nino	Gila	Graham	Green-lee	La Paz
CIVILIAN LABOR FORCE*	15,350	34,550	41,625	12,850	8,375	2,975	5,450
Total Unemployment	2,550	2,725	3,775	1,575	700	250	525
Rate	16.6%	7.9%	9.1%	12.3%	8.4%	8.4%	9.6%
Rate (Seas. Adj.)**	16.4%	7.4%	8.0%	11.6%	8.3%	8.0%	9.1%
Total Employment	12,800	31,825	37,850	11,275	7,675	2,725	4,925
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS							
TOTAL WAGE AND SALARY	14,575	24,650	36,675	10,575	5,225	2,875	3,725
Manufacturing	800	1,200	2,775	1,275	200	75	350
Mining & Quarrying	50	100	150	1,275	0	1,550	125
Construction	525	825	1,400	600	225	200	175
T.C.P.U.	1,975	1,625	2,350	350	150	50	50
Trade	1,450	5,775	8,525	2,100	1,475	225	1,250
F.I.R.E.	300	700	775	275	100	25	100
Services & Misc.	4,225	4,775	9,650	2,100	900	150	900
Government	5,250	9,650	11,050	2,600	2,175	600	775

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
CIVILIAN LABOR FORCE*	32,725	26,875	39,275	10,425	37,325	54,575
Total Unemployment	2,175	3,575	3,250	1,050	2,600	6,825
Rate	6.6%	13.3%	8.3%	10.1%	7.0%	12.5%
Rate (Seas. Adj.)**	6.3%	12.5%	8.3%	11.9%	6.3%	17.3%
Total Employment	30,550	23,300	36,025	9,375	34,725	47,750
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS						
TOTAL WAGE AND SALARY	22,475	19,550	30,575	9,725	24,700	27,550
Manufacturing	2,925	1,875	4,150	1,375	2,175	2,125
Mining & Quarrying	200	1,150	3,700	0	1,125	50
Construction	1,750	775	1,575	325	1,875	1,350
T.C.P.U.	1,175	1,875	950	525	925	1,000
Trade	6,725	3,750	5,450	3,975	6,800	8,850
F.I.R.E.	975	375	775	275	975	1,025
Services & Misc.	5,075	4,575	4,275	1,575	5,575	6,150
Government	3,650	5,175	9,700	1,675	5,250	7,000

* Adjusted to the Current Population Survey (CPS) to reflect place of residence.
** Seasonal adjustment not applicable for economic assistance programs.

T.C.P.U. = Transportation, Communications, and Public Utilities
F.I.R.E. = Finance, Insurance, and Real Estate

Prepared in conjunction with the U.S. Department of Labor, Bureau of Labor Statistics.

Estimated Hours and Earnings of Production Workers in Selected Industries Arizona

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	Jan.* 1989	Dec. 1988	Jan. 1988	Jan.* 1989	Dec. 1988	Jan. 1988	Jan.* 1989	Dec. 1988	Jan. 1988
Manufacturing	404.15	413.66	396.82	40.7	41.7	40.7	9.93	9.92	9.75
Aircraft & Missiles	592.30	INA	INA	44.4	INA	INA	13.34	INA	INA
Food & Kindred Prod.	347.58	326.58	373.60	40.7	39.3	40.0	8.54	8.31	9.34
Primary Metals	505.72	503.87	438.22	40.2	39.8	37.2	12.58	12.66	11.78
Machinery	397.19	411.26	388.65	39.6	40.8	40.4	10.03	10.08	9.62
Copper Mining	543.54	525.10	511.29	42.9	40.8	41.3	12.67	12.87	12.38
Construction	418.40	420.64	426.16	35.7	36.2	36.3	11.72	11.62	11.74
Utilities	692.30	640.48	599.59	43.9	42.5	41.9	15.77	15.07	14.31
Retail Trade**	241.15	242.22	241.16	32.5	33.0	31.9	7.42	7.34	7.56
Wholesale Trade	374.01	369.72	389.61	39.0	39.0	39.0	9.59	9.48	9.99

Estimated Hours and Earnings of Production Workers in Selected Industries Maricopa County

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	Jan.* 1989	Dec. 1988	Jan. 1988	Jan.* 1989	Dec. 1988	Jan. 1988	Jan.* 1989	Dec. 1988	Jan. 1988
Manufacturing	429.93	439.95	434.06	41.3	42.1	41.3	10.41	10.45	10.51
Construction	433.31	439.56	440.32	36.2	37.0	36.3	11.97	11.88	12.13
Retail Trade**	268.20	267.81	264.54	33.4	33.9	32.7	8.03	7.90	8.09
Wholesale Trade	393.39	391.44	406.21	39.3	39.7	39.4	10.01	9.86	10.31

Estimated Hours and Earnings of Production Workers in Selected Industries Pima County

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	Jan.* 1989	Dec. 1988	Jan. 1988	Jan.* 1989	Dec. 1988	Jan. 1988	Jan.* 1989	Dec. 1988	Jan. 1988
Manufacturing	377.28	386.16	374.53	39.3	40.1	39.3	9.60	9.63	9.53
Copper Mining	615.55	578.34	539.75	44.8	42.0	42.5	13.74	13.77	12.70
Construction	386.71	388.07	380.06	36.9	37.1	36.3	10.48	10.46	10.47
Utilities	595.85	584.22	585.50	40.7	41.2	42.8	14.64	14.18	13.68

* Preliminary
** Excludes eating and drinking places.

NOTE: These estimates are based on a sample of full-time and part-time production and related employees whose payroll and hours are reported for the pay period that includes the 12th of the month. Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

Arizona Labor Force and Employment for Economic Assistance Programs January 1989

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,664,023	1,567,496	96,527	5.8%
Apache	15,144	12,638	2,506	16.5
Cochise	34,112	31,436	2,676	7.8
Coconino	41,102	37,390	3,712	9.0
Gila	12,694	11,148	1,546	12.2
Graham	8,293	7,593	700	8.4
Greenlee	2,943	2,703	240	8.2
La Paz	5,366	4,854	512	9.5
Maricopa	1,029,647	979,644	50,003	4.9
Mohave	32,334	30,181	2,153	6.7
Navajo	26,526	23,018	3,508	13.2
Pima	316,042	300,558	15,484	4.9
Pinal	38,770	35,578	3,192	8.2
Santa Cruz	10,283	9,260	1,023	9.9
Yavapai	36,876	34,318	2,558	6.9
Yuma	53,890	47,177	6,713	12.5

These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators.

NOTE: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

The Arizona Labor Force in January

(Continued from page 13)

were let go. But then Arizona retail firms only increased staff 14,100 from September to December in 1988 compared to 20,000 in 1987 and 17,800 in 1986. Fewer employees were brought on for Christmas, so fewer were let go after the holiday season.

TCPU was the remaining industry that took a substantial post-Christmas decline but only half that of a year ago. It lost 700 jobs in January. Besides fluctuating because of Christmas seasonal changes, TCPU also fluctuates with the tourist season.

Other tourism-related industries -- restaurants and bars (retail trade), hotels, and amusements (Services) -- posted mixed trends in January. Restaurants and bars declined 900, hotels had no change, and amusements added 100. February and March statistics should be better indicators of the condition of this year's tourism season.

Government had normal seasonal declines, dropping 12,300 in January. Most of these losses were from school recesses, including reductions in work-study student employment.

--Ron Simon

Pima County Takes Knocks, But Worst Appears Over

Tucson-area economic developers suffered a soul-searching year during 1988 as several major manufacturers announced plans to leave Pima County.

Looming largest among these was Big Blue, for International Business Machines was Tucson's pride. IBM announced in 1988 it was discontinuing its manufacturing operation in Tucson, reducing its 5,000-employee workforce in half by the end of 1989. In other major developments, Gates Learjet completed its withdrawal to Wichita, Kan., closing a chapter on Pima County growth, while Hughes Aircraft Co. laid off about 1,000 workers due to a reduction in military contracts.

Possibly related to the Hughes' cutbacks, the U.S. Defense Department announced plans to close or pare selected military bases around the country. Davis-Monthon Air Force Base is targeted to lose nearly 500 military personnel which, although it doesn't directly affect Pima County's labor force totals, does have a major ripple effect on the area's economy.

After a year like that, how could things get worse? Tucson leaders will be happy to learn they probably won't.

Despite these horrendous announcements, Pima County nonfarm wage and salary employment grew in 1988, albeit at 0.9 percent, its slowest rate since the 1982 recession. Pima County also had the dubious distinction of growing at half the rate of Arizona's two other major divisions, Maricopa County and Nonmetropolitan Counties. Pima County's growth rate translates to a net of 2,100 new jobs.

Most new jobs created in 1988 were in Services (2,200) and Government (2,100), although the retail trade division of Trade made a significant contribution (1,800).

Government's rate of growth exceeded all other major industry groups, coming in at 4.2 percent. It was the fastest Government growth rate in 14 years (4.9 percent in 1975). Services' rate, on the other hand, was the lowest it has been since the 1982 recession (3.4 percent in 1988, 4.8 percent in 1982).

While resort development in Tucson was appealing for most of this decade, high vacancy rates dampened enthusiasm for continuing new investments. Within Services, hotel employment had its slowest growth rate (1.5 percent) in 10 years. Last year's slowdown followed three years of double-digit growth in which 800 hospitality jobs were added each year. Meanwhile, business services (4.5 percent) and health services (3.7 percent) grew at half the average annual rates since 1982.

By 1990 all industries of the Tucson-area labor market will be growing again, although it will be slow growth.

Trade's growth rate in 1988 was lower than it has been in five years, tripping along at 2.5 percent, just above the average for all industries. Wholesale trade lost employment for the second straight year, nearly returning to its 1984 level. Retail trade made up for some of that job loss, growing at a healthy, but not spectacular, 3.7 percent rate.

Mining employment grew for the first time in seven years on an annual-av-

(Continued on page 20)

Table 4

PIMA COUNTY ECONOMIC FORECASTS
(Annual Averages, In Thousands)

	1988	Growth Rate	1989	Growth Rate	1990	Growth Rate
Labor Force	311.9	NA	319.8	2.5%	330.2	3.3%
Unemployed	16.0	NA	18.2	13.8	17.9	-1.6
Unemployment Rate	5.1%	—	5.7%	—	5.4%	—
Total Employment	295.9	NA	301.4	1.9	312.3	3.6
Total Wage and Salary Employment	247.1	0.9%	250.0	1.2%	255.7	2.3%
Manufacturing	30.4	-1.9	29.6	-2.6	30.1	1.7
Mining	1.8	12.5	2.0	2.0	2.1	2.1
Construction	17.1	-13.2	15.6	-8.8	15.8	1.3
TCPU*	9.1	-1.1	9.2	1.1	9.4	2.2
Trade	57.0	2.5	58.6	2.8	60.1	2.6
FIRE**	12.2	-4.7	11.8	-3.3	11.9	0.9
Services	67.5	3.4	69.5	3.0	71.7	3.2
Government	51.9	4.2	53.6	3.3	54.7	2.1

* TCPU = Transportation, Communications, and Public Utilities.
** FIRE = Finance, Insurance, and Real Estate.

Notes: Totals may not be exact due to rounding.
NA = Data not available at time of printing.

Source: Arizona Department of Economic Security, Research Administration, February 1989.

erage basis. Only 200 jobs were added over the year, reversing a trend that has seen 6,000 jobs lost since 1981. Improved industry technology and rising world copper prices have made the turnabout possible.

Industries losing jobs in 1988 were: Construction; Finance, Insurance and Real Estate (FIRE); Manufacturing; and Transportation, Communications, and Public Utilities (TCPU). Combined, they lost 3,900 jobs.

Construction employment, which peaked in 1986 at a level of 21,400 jobs, declined to 17,400 last year, a 21 percent loss. As in the Phoenix area, overbuilding brought on the decline.

While Construction is in its second year of decline, FIRE posted its first annual-average loss since 1976, dropping 600 jobs. Manufacturing has dropped 600 jobs each of the past two years. TCPU, which declined by only 100 jobs, has held a relatively stable growth level since 1982.

Growth to remain sluggish in '89

The Tucson-area labor market will employ a quarter million wage and salary employees in 1989. Growth, however, will continue at a sluggish 1.2 percent rate. By 1990 growth will accelerate to 2.3 percent, adding a net 5,700 new jobs.

Services, Government and Trade will add the most new jobs in Pima County (5,300 combined), as they have in the last two years.

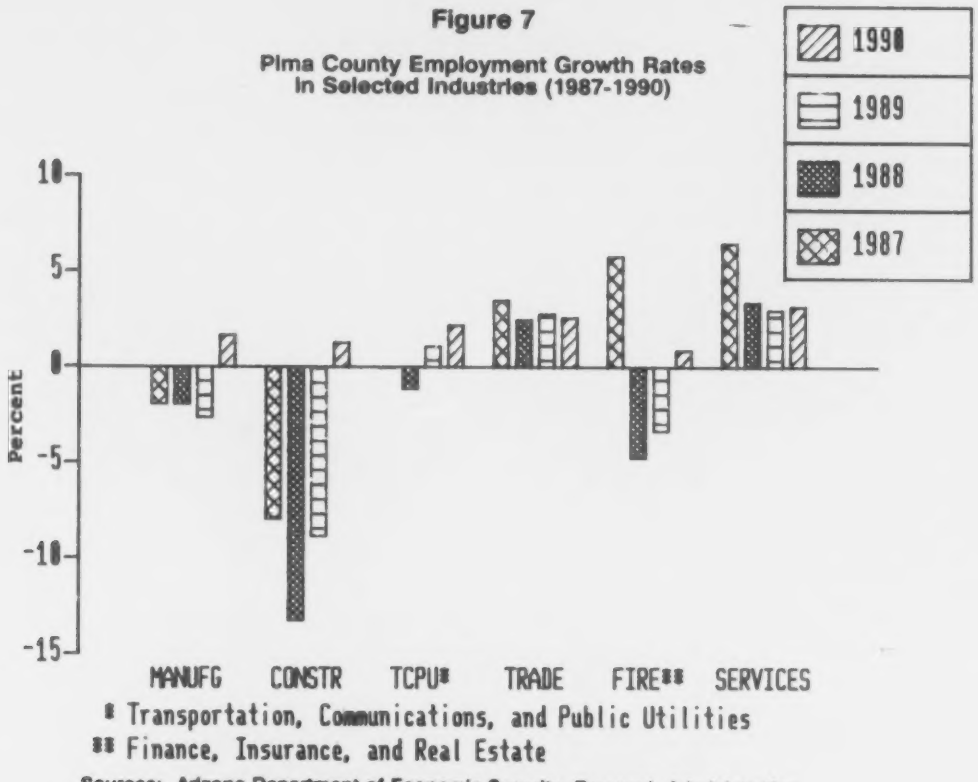
Government will still grow in 1989 at the greatest rate (3.3 percent) of all industries, bu Services will add the most jobs (2,000). In 1990 Services will grow at the greatest rate (3.2 percent) and add the most new jobs (2,200). Trade will add about 1,500 workers each year.

Services' major components will all

(Continued on page 21)

Figure 7

Pima County Employment Growth Rates In Selected Industries (1987-1990)



* Transportation, Communications, and Public Utilities

** Finance, Insurance, and Real Estate

Sources: Arizona Department of Economic Security, Research Administration, and U.S. Bureau of Labor Statistics, February 1989.

grow slowly in the next two years. The heyday of hotel growth appears to be over. Even after the near dormant year of 1988, hotels will not have substantially accelerated growth, increasing 2.6 percent in 1989 and 2.3 percent in 1990.

Business services will not do much better, posting growth rates of 2.6 percent in each of the next two years. Health services' rates will at least climb above the 3-percent level with rates of 3.7 and 3.1 in 1989 and 1990.

Trade will mimic Services, growing at rates of 2.8 and 2.6 percent the next two years. Wholesale trade will suffer its third straight year of decline, losing 125 jobs in 1989. By 1990, however, wholesale trade will begin to grow again, albeit at less than a 1-percent rate. Retail trade growth, meanwhile, will slow to 3.4 percent in 1989 and 2.8 percent in 1990. Among retail trade's components, food stores will enjoy the greatest rates of growth (4.5 to 5.0 percent).

Now that Mining has turned, it will continue to grow over the next two years. Research Administration expects an additional 300 jobs during that time as long as world copper prices remain high. Despite relatively high world copper prices, however, there will be no return to anything resembling peak Mining employment levels of almost a decade ago.

Construction leads downside industries

The downside industries will continue to be Construction, FIRE, and Manufacturing. Combined they will lose 2,700 jobs in 1989. Construction will account for more than half of those losses. Manufacturing will realize the already announced losses in nonelectrical machinery and air

(Continued on page 22)

craft and missiles, as well as some losses in aggregates because of the down Construction industry.

The good news in all of this is that 1989 will be the bottom of the decline. By 1990 all industries of the Tucson-area labor market will be growing again, although it will be slow growth. This outlook could, of course, be postponed if the Federal Reserve overreacts to rising inflation and causes interest rates to go through the roof.

Tucson economic developers may be asking the same question as their counterparts in Phoenix. "Where did we go wrong?" In Research Administration's view, no one among the economic-development community necessarily did anything wrong.

The downturn in Construction is not a structural change. Rather, Pima County has suffered a cyclical downturn that will reverse itself when interest rates improve and population growth accelerates. Research Administration believes that is also true for Manufacturing. Indeed, some announcements of Tucson relocations by small- to medium-sized manufacturers have already been made.

--Ron Simon

Slow Growth Forecasted in Maricopa County

(Continued from page 12)
years. Several regional chains from other states have entered the Phoenix market and are challenging local stores for area business.)

Three components of retail trade that serve both local residents and tourists are expected to have low growth rates in 1989 -- department stores, automotive stores, and eating and drinking places. All three will experience modest improvement in 1990.

Transportation, Communications, and Public Utilities (TCPU) and Government will grow at rates of about 2 to 2.5 percent during 1989 and 1990. Government budgets will be squeezed from the lack of growth of other industries, and from slowed population growth. State and local governments are searching for potential revenue enhancements in order to meet the expectations of those already here and build the infrastructure for future growth.

Slower growth expected

Growth continues in Maricopa County at rates substantially reduced from 1983, 1984, and 1985; rates many would say are more sustainable. The Phoenix area will not be a national champion in employment growth during the next two years, but it will be highly rated in another category.

The U.S. Census Bureau projects Arizona to be the fastest growing state during the 1990s. Few analysts in the state disagree with that outlook. Since population growth cannot be sustained without job growth, higher rates of job growth are certain to return. The long-term outlook for the Phoenix area remains positive.

--Ron Simon

Job-Growth Rate to Remain Higher in Nonmetropolitan Counties

For the third year in a row Arizona's rural counties recorded stronger job growth than the state's two metropolitan counties (Maricopa and Pima).

Revised statistics reveal that Nonmetropolitan Counties' wage and salary employment grew 2.3 percent last year compared to 1.9 percent in Maricopa County and 0.9 percent in Pima County.

Rural counties, however, slowed in job creation last year as the result of job losses in two sectors -- Construction; and Transportation, Communications, and Public Utilities (TCPU) -- plus no net addition to employment in Finance, Insurance, and Real Estate (FIRE).

Higher job growth in Nonmetropolitan Counties is forecasted for the next two years. Jobs are expected to increase 2.2 percent in rural counties in 1989 -- compared to growth of 1.7 percent in Maricopa County and 1.2 percent in Pima County -- then increase slightly to 2.7 percent in 1990.

The Nonmetropolitan Counties' unemployment rate edged up in 1988 to 11.3 percent (from 10.9 percent) due to negative or no job growth in Construction, TCPU, and FIRE.

With little improvement expected in these sectors in urban areas of the state, many rural county workers will remain in their immediate areas, creating further pressure on their counties' unemployment rates. Research Administration expects the rural counties' unemployment rate to climb to 11.9 percent in 1989, then dip slightly to 11.6 percent in 1990.

(Continued on page 24)

Table 5

NONMETROPOLITAN COUNTIES ECONOMIC FORECASTS
(Annual Averages, in Thousands)

	1988	Growth Rate	1989	Growth Rate	1990	Growth Rate
Labor Force	314.4	NA	323.8	3.0%	333.6	3.0%
Unemployed	35.5	NA	38.4	8.2	38.7	0.8
Unemployment Rate	11.3%	—	11.9%	—	11.6%	—
Total Employment	279.0	NA	285.4	2.3	295.0	3.4
Total Wage and Salary Employment	232.2	2.3%	237.4	2.2%	243.9	2.7%
Manufacturing	21.2	2.4	21.5	1.4	21.9	1.9
Mining	9.5	3.3	9.9	4.2	10.0	1.0
Construction	12.2	-10.3	11.5	-5.7	11.4	-0.9
TCPU*	13.3	-1.5	13.3	0.0	13.4	0.8
Trade	54.8	3.0	56.1	2.4	57.6	2.7
FIRE**	6.8	0.0	6.8	-2.9	6.7	1.5
Services	49.8	4.0	51.7	3.8	53.5	3.5
Government	64.8	4.2	67.0	3.4	69.3	3.4

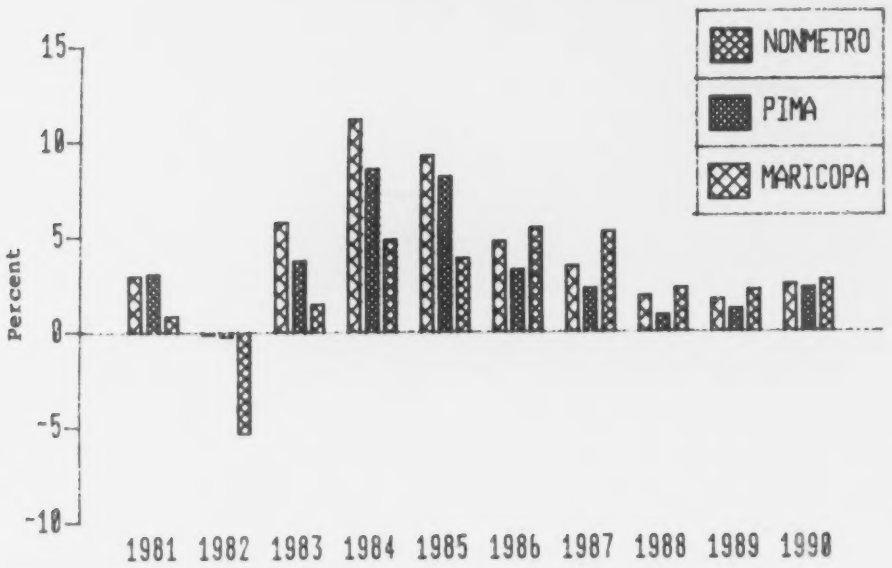
* TCPU = Transportation, Communications, and Public Utilities.
** FIRE = Finance, Insurance, and Real Estate.

Notes: Totals may not be exact due to rounding.
NA = Data not available at time of printing.

Source: Arizona Department of Economic Security, Research Administration, February 1989.

Figure 8

Wage and Salary Employment Growth Rates by Area (1981-1990)



Sources: Arizona DES, Research Administration, and U.S. Bureau of Labor Statistics, February 1989.

Manufacturing rebounded with a net addition of 500 jobs in 1988, after a decline of 100 jobs in 1987. Durable sectors contributed most of the employment gain (400), primarily from nonelectrical machinery and primary metals industries. Nondurable sectors improved in 1988 with stronger job growth from printing and publishing, and food processing companies. The apparel industry continued to struggle, losing 200 jobs in 1988.

The outlook is weaker for Manufacturing the next two years, with projected job growth of 1.4 percent in 1989 and 1.9 percent in 1990. Industries showing the strongest growth should be printing and publishing, and primary metals.

Mining, for the second straight year, reversed the trend of declining job growth that began in 1982, adding a net of 300 jobs. Gains in Mining were triggered by favorable conditions -- steady prices of copper of more than $1 per pound, short-term demand exceeding supply, and more advanced technology to efficiently extract and process ore. Job growth in Mining is expected to continue with 400 new jobs (4.2 percent) in 1989 and 100 new jobs (1 percent) in 1990.

Rural-area employment in Construction followed the downtrend of urban areas that started in 1987. This sector lost 1,400 jobs (a 10.3 percent drop) in 1988, Construction's first decline in the rural counties since 1982. Job losses occurred in all areas of heavy construction and special trades, but general contracting did manage a gain.

With a forecast of higher interest rates and the completion of several large projects, all sectors of Con-

(Continued on page 25)

struction are expected to decline during the next two years. Employment levels are projected to drop 5.7 percent in 1989 and 0.9 percent in 1990.

Rural-area Trade and Services sectors added 3,400 new jobs (3.4 percent) in 1988, primarily due to gains in tourist-related industries. Yavapai, Coconino and Mohave counties were most responsible for job growth.

A decline in tourism due to a slowdown in the national and Arizona economies will lead to moderate growth in Trade and Services the next two years. Employment levels in Trade should increase 2.4 percent in 1989 and 2.7 percent in 1990. Services is expected to grow 3.8 percent in 1989 and 3.5 percent in 1990.

TCPU recorded a 1.5 percent decrease in employment levels last year due to a drop in transportation industries and only slight gains in the public utilities sector.

Southern rural counties, which rely heavily on trade with Mexico, were responsible for the TCPU loss. One of the causes: the dollar's higher value in relation to the Mexican peso generated less trade and consequently fewer employment opportunities for the trucking industry on the Arizona side of the border. TCPU employment levels are expected to remain the same in 1989, followed by an increase of 0.8 percent in 1990.

Finance industries caused a 1.5 percent decline in FIRE employment in 1988, the sector's first drop since 1975. With an outlook for higher interest rates, FIRE employment is projected to decline 2.9 percent in 1989, then rebound with a 1.5 percent gain in 1990.

Government, which added 2,600 jobs (4.2 percent) in the rural counties in 1988, will continue to grow but at a slower rate of 3.4 percent in the next two years. Slower growth will be due to budget constraints at both the state and federal levels.

The overall economic outlook for Nonmetropolitan Counties the next two years is positive, with nearly 11,700 jobs expected to be created. But counties with diversified economies -- emphasizing manufacturing and tourism instead of agriculture -- will contribute to most of the rural-area growth.

--Jalal Ahmad

New Developments

"New Developments" is featured each month as a service to our readers. This section is a compilation of public announcements and articles from newspapers and periodicals about events significant to Arizona labor markets. Due to space limitations, however, an exhaustive list of business news is not possible. In addition, the LMI Newsletter is not responsible for incorrect information reported from these sources.

MANUFACTURING - **Mold Masters Inc.** of Covina, Calif., is relocating its manufacturing operation from Renton, Wash., to the Estrella Distribution Center in Goodyear. The move of the plastics manufacturer to a building formerly owned by the Quaker Maid Co. (near the intersection of Arizona 85 and Cotton Lane) is expected to generate 100 production jobs immediately and up to 500 positions within two years.

Citing a decline in defense contracts, **Hughes Aircraft Co.** laid off

(Continued on page 26)

80 to 90 production-line employees in February at its Missile Systems Group plant in Tucson. Hughes has reduced its work force by about 2,500 in the past three years.

Talley Industries Inc. has sold its air-bag manufacturing plant in Mesa to TRW Inc. TRW is not expected to make any changes in the number of employees (200) at the 100,000-square-foot facility

CONSTRUCTION - A Japanese company is joining forces with a U.S. developer to build a "superblock" project in downtown Mesa. **Mitsui Kensetsu** will have a 32-percent interest in a seven-story office tower and 50 percent share in the remainder of the project, which will include movie theaters, retail shops, fountain and parking garage.

Continental Homes led Valley builders in new home sales in 1988 with 1,209, up 77 from the previous year. Overall, however, new home sales in the Phoenix metropolitan area dropped 23 percent from 1987. Rounding out a list of the top new home builders in the Valley are: UDC Homes, General Homes, Del E. Webb Development, Knoell Homes, U.S. Homes, Pulte Homes, Estes Homes, Richmond American Homes, and Cardon Homes. Cardon, however, recently went out of business due to slumping sales in the Valley and Denver.

TRADE - Construction is set to begin this month on the **Bell Canyon Pavilions** Shopping Center at Bell Road and the Black Canyon Freeway in Phoenix. Anchoring the 366,000-square-foot retail center will be an Albertson's food store, first in the Valley for the 490-store chain. Kobel Development Co. is heading the project.

A wide variety of discount stores will be making their first appearance in the Valley during 1989. **BizMart Office Products Supercenters** of Arlington, Texas, will open four stores this year. Each store, which has about 25,000 square feet of space, will employ about 40 people. Two of the locations have been determined; one at Interstate 17 and Dunlap Avenue, and the other at Broadway and Rural roads. ... **Office Club** of Concord, Calif., a similar operation to BizMart, will open its first store in the Phoenix area in April and two more by the end of 1989. Each store has about 20,000 square feet and employs 35 workers. ... Two to three **Circuit City Superstores** are expected to open before the Christmas season at sites to be determined. Richmond, Va.-based Circuit City, a chain of 122 electronics and appliance stores in 13 states, typically employs about 60 people per location. ... Off-price clothing and household goods will be offered through several **T.J. Maxx** department stores if plans can be worked out. The Framingham, Mass., chain sells goods from 20 to 60 percent below list price.

MINING - The opening of a new copper mine about 15 miles northeast of Safford will generate 250 jobs during a construction phase and 100 full-time positions by mid-1990 when production is expected to begin. **AZCO Mining** plans to invest $40 million to develop the open-pit mine and electrowinning plant that is expected to yield about 200 million tons of copper oxide a year.

Expansion of Asarco Inc.'s **Mission Mine complex** 20 miles south of Green Valley is expected to bring 200 additional jobs during the next three years. The $260 million project will modernize Asarco's operations in Arizona and El Paso, Texas, and increase copper production by 40 percent, the company said.

FINANCE, INSURANCE and REAL ESTATE - Three Valley savings and loans were

(Continued on page 27)

taken over by federal regulators in February due to insolvency problems. **Southwest Savings, Security Savings** and **Universal Savings** were among 25 U.S. thrifts put into federal conservatorship as part of a plan instituted by President Bush. The savings and loans, which have not announced any layoffs, are continuing business as usual.

Chase Bank of Arizona will lay off 35 employees by the end of March due to poor economic conditions in the state, bank officials said. The release of branch managers, administrative staff and others will leave Chase, a subsidiary of Chase Manhattan Corp. of New York., with about 500 employees in Arizona. Chase Bank of Arizona lost $41 million in 1988, partly due to its writing-down of real estate assets.

TRANSPORTATION, COMMUNICATIONS, AND PUBLIC UTILITIES - Tucson could become one of the largest private aviation training and service centers if an Irving, Texas, company and Tucson officials can reach an agreement. As of the first week of March, **Imagineering IEC** and the city of Tucson were close to making a deal that would allow Imagineering to establish a training facility at the vacated Learjet Corp. manufacturing plant at Tucson International Airport. It is estimated that the company would hire several hundred workers initially and into the "thousands" down the line. Any agreement would not likely affect an effort to lure Italian plane manufacturer **Piaggio Aviation Inc.**, which would also need part of the former Learjet plant to manufacture its Avanti P-180 turboprop aircraft. (See "New Developments," *Labor Market Information Newsletter*, February 1989.)

SERVICES AND MISCELLANEOUS - The Valley tourism industry recently received a double-dose of good news. First, convention bookings doubled in the second half of 1988, compared to the same period the previous year. The increase is due primarily to an effort to attract specific groups that would use the Phoenix Civic Plaza. Second, it's estimated hotel occupancy rates will rise to 59 percent in 1989, 2 percent higher than in 1988. The increase marks the first time in five years the occupancy rate has risen. Statewide, 61 percent of hotel rooms are expected to be filled.

LAW -- It's now illegal for most employers involved in interstate commerce to use **polygraph exams** for pre-employment screening and in random instances on workers already on the payroll. The restrictions are due to a new federal law that went into effect in January. Major exceptions include federal, state and local governments; businesses that work with the Defense Department; companies involved with controlled substances; and firms in the security field.

The **Western Region of the Immigration and Naturalization Service** has issued more than $1 million in fines against 338 employers in California, Nevada, Arizona, Hawaii, and Guam since legislation on immigration reform took effect in June 1988. It's estimated 90 percent of employers in the region are complying with the new law.

VOCATIONAL EDUCATION -- The state Department of Education has awarded funds to **Queen Creek Unified School District** to establish a high-technology laboratory. Lab 2000 is designed to expose students (grades 7-12) to four business sectors where technology is utilized -- construction, transportation, manufacturing and communications. Anyone interested is also eligible to visit the lab. Additional information is available by contacting Roger Smith, 987-3078.

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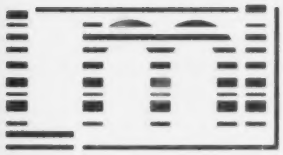

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ARIZONA LABOR MARKET INFORMATION NEWSLETTER

Vol. XIII No.4
April 1989

Unemployment Rate

Seasonally Adjusted
February*

ARIZONA	-	5.9%
Maricopa Co.	-	4.8%
Pima Co.	-	5.0%
U.S.	-	5.1%

Consumer Price Index

U.S. - January 1989
Base = 1982-84

Wage Earner/Clerical Worker	-	120.2
% Chg. Year Ago.		4.8
All Urban	-	121.6
% Chg. Year Ago		4.8

Phoenix - 4th Qtr 1988
Base - 1982-84

All Urban	-	122.5
% Chg. Year Ago		5.1

Tucson - 4th Qtr 1988
Base = 1982-84

All Urban	-	124.3
% Chg. Year Ago		3.2

* Preliminary

Data-Gathering Unit Grows Up Fast, P. 2

Inside This Issue

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Arizona Department of Economic Security
— Moving People Toward Self-Sufficiency

Research Administration Created to Improve Collection, Analysis of Labor Market Data

First in a series

In an effort to give readers a better understanding of the functions of DES, Research Administration, beginning this month and continuing for several issues, the Arizona LMI Newsletter will take an in-depth look at the data-gathering and analyis center which measures the state's economic pulse. Articles will focus on the four program areas that make up Research Administration and the functions they provide to the public and private sectors, plus look at what the future holds for this five-year-old unit. Starting off the series is a brief history of Research Administration and an overview of its components.

DES, Research Administration (RA), is celebrating a birthday of sorts. Five years ago this month DES created RA (within the Division of Employment and Rehabilitation Services (DERS)) with a goal of improved coordination in the collection and dissemination of Arizona labor market information.

Primarily the brainchild of RA's current and only administrator, Dan Anderson, RA brings together federally-legislated programs and other functions that prior to April 1984 operated as separate entities, in and outside DERS.

For example, most of the programs that make up two of RA's current units -- Economic Analysis and Data Systems -- were previously spread out among two DERS' sections, Employment and Training Administration (ETA), and Unemployment Insurance Administration (UIA). On the other hand, the Population Statistics unit, which joined RA in 1987, was under the Division of Planning and Policy Development, which is no longer in existence.

Some of the initial reasons for establishing an umbrella organization for labor market information were:

--reduced fragmentation in the collection, analysis and dissemination of economic information.

--a one-stop shopping center of data for the public, and private and government organizations.

--improved resource utilization. By bringing together a staff with similar skills (data analysis, word processing), it's easier to allocate resources and develop cross-training programs.

--added credibility in analysis of how other programs (Job Training Partnership Act, Unemployment Insurance, Job Service) are performing certain phases of their work.

Forming a separate RA division, however, was no assurance of success. Early in DES history a similar "Research" unit had been formed, but it failed and was disbanded, in part because of the inclusion of programs that did not involve research activities, a Sept. 30, 1982, report concluded.

Most of those problems could be overcome, the report added, "by more carefully sorting out research ingredients... ." The agency agreed and on April 1, 1984, RA was officially "open for business."

(Continued on page 4)

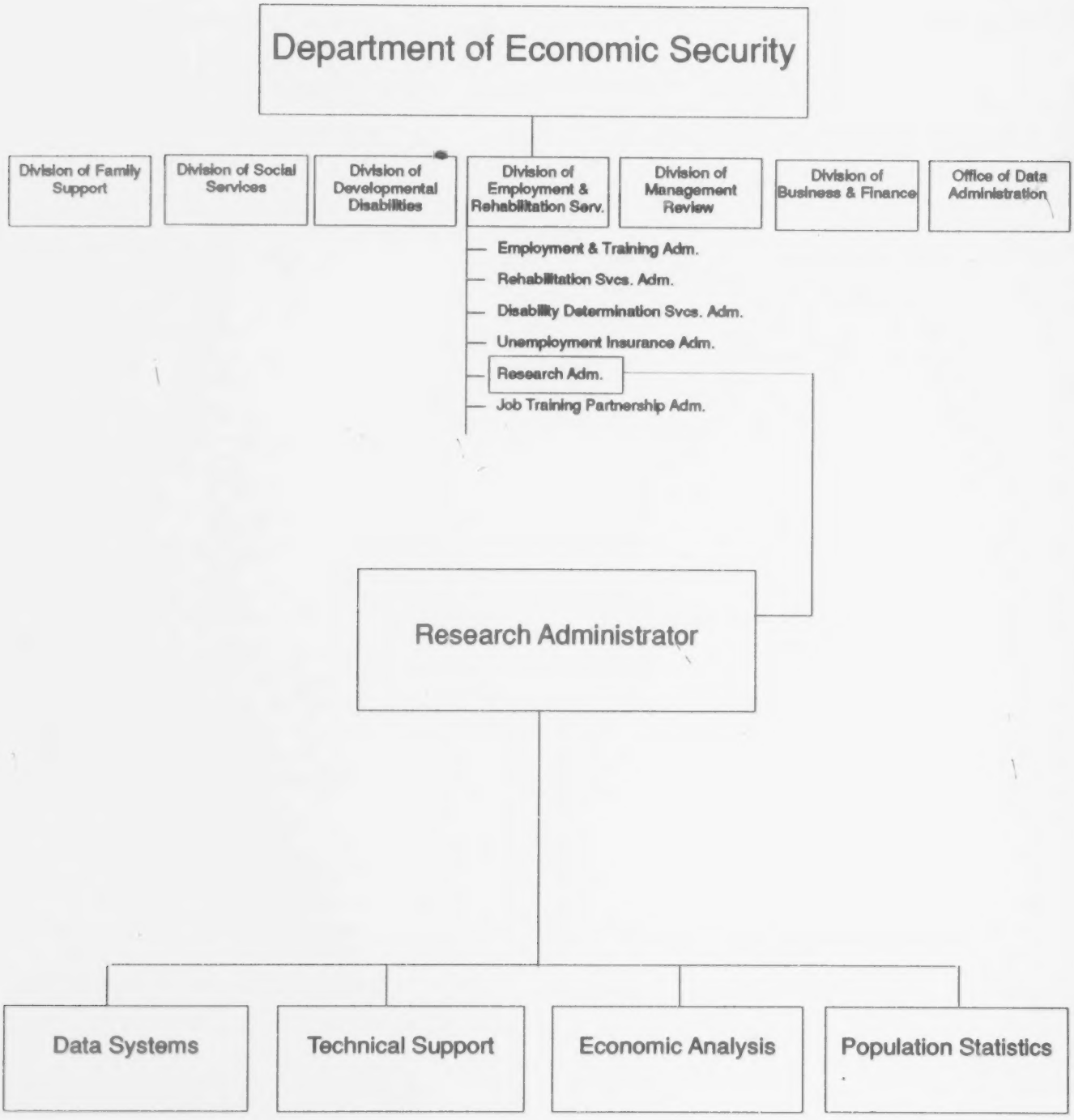

Figure 1. DES, Research Administration, Organizational Chart

(Continued from page 2)

The four units that make up RA are Data Systems, Economic Analysis, Technical Support, and Population Statistics (see Figure 1, page 5).

All of these divisions, except Population Statistics, are funded and overseen by two U.S. Department of Labor divisions -- the Bureau of Labor Statistics (BLS), and the Employment and Training Administration (ETA). Because of this, RA works closely with the BLS and ETA, and is reviewed annually by those agencies.

> "As much as anything, the organizational change has produced a real change in attitudes."
>
> *–Dan Anderson, Research Administrator*

Following is a brief review of each unit's function, with a more detailed look at each division coming in the next several issues.

Data Systems, comprised of several programs, is responsible for collection and compilation of data pertaining to job activity and the economic environment.

The Current Employment Statistics (CES) program collects data on employment, as well as average hours worked and average earnings in major industries in Arizona. The Local Area Unemployment Statistics (LAUS) program estimates monthly unemployment rates for the state, counties and selected sub-county areas. Another program under Data Systems is Occupational Employment Statistics (OES), which identifies occupational staffing patterns by industry. Finally, the ES-202 program tracks county-level employment and wage data made available through unemployment insurance reports.

RA's Economic Analysis unit focuses on analysis and dissemination of labor market information.

Economic Analysis produces a variety of publications for current and future job seekers and employers, plus this monthly newsletter, which includes in-depth labor and economic data, and analysis of topical labor market subjects. In addition, Economic Analysis holds a news conference each month to discuss the state's employment picture, and economists and research analysts are available daily to answer questions from the general public. Also housed under this unit is the Arizona State Occupational Information Coordinating Committee (ASOICC), which provides occupational and career data -- number of job openings, training requirements -- to educators and students, as well as to public agencies, interested groups and the general public.

The third component of RA is Technical Support, which contains technical staff in data processing, actuarial research and special projects.

Among Technical Support's functions is the compiling of data related to the Unemployment Insurance Trust Fund, determining if plants come under the Permanent Mass Layoff and Plant Closing (PMLPC) law, and providing research on contract to a number of users. Technical Support is also responsible for maintaining the department's computer equipment.

The final RA division is Population

(Continued on page 8)

REVISED ARIZONA POPULATION ESTIMATES, 1981-88

County	1980*	1981	1982	1983	1984	1985	1986	1987	1988
APACHE	52,108	54,300	55,800	57,900	59,300	61,900	63,100	64,900	66,300
COCHISE	85,686	88,200	89,200	89,900	92,100	92,900	96,000	99,300	101,500
COCONINO	75,008	78,300	80,300	82,500	84,600	86,800	89,500	91,900	94,400
GILA	37,080	39,000	39,900	39,800	39,500	39,900	40,900	41,400	41,900
GRAHAM	22,862	23,100	23,700	23,600	23,800	23,800	23,900	24,400	25,100
GREENLEE	11,406	11,300	11,300	10,600	10,200	9,500	9,000	8,900	8,700
LA PAZ	12,557	13,100	13,300	13,600	13,400	13,800	13,900	14,200	14,500
MARICOPA	1,509,175	1,574,000	1,614,400	1,649,200	1,726,400	1,829,500	1,910,000	1,979,000	2,035,500
MOHAVE	55,865	59,900	63,900	65,700	69,500	73,900	79,000	82,000	86,000
NAVAJO	67,629	69,500	71,400	73,600	75,700	77,500	79,100	80,600	82,100
PIMA	531,443	551,000	565,700	580,000	594,500	607,300	632,700	652,400	664,400
PINAL	90,918	93,700	96,200	97,300	98,700	101,100	105,200	107,900	110,300
SANTA CRUZ	20,459	21,300	22,200	22,600	23,200	24,100	25,100	26,800	28,700
YAVAPAI	68,145	72,400	75,100	77,200	79,500	83,100	87,300	90,700	94,500
YUMA	76,205	79,100	80,600	82,600	84,000	86,200	88,700	92,100	94,500
TOTAL (ARIZ.)	2,716,546	2,828,200	2,903,000	2,966,100	3,074,400	3,211,300	3,343,400	3,457,200	3,548,400
Incorporated Places									
Apache Junction	9,935	10,550	11,595	12,770	13,820	14,340	15,555	16,440	17,385
Avondale	8,168	8,205	8,270	8,575	9,240	9,610	10,175	10,605	11,405
Benson	4,190	4,200	4,250	3,800	3,750	3,725	3,770	3,810	3,885
Bisbee	7,154	7,225	7,290	7,365	7,425	7,350	7,650	7,730	7,775
Buckeye	3,434	3,535	3,640	3,640	3,645	3,755	3,840	3,950	3,970
Bullhead City	10,719	11,800	12,500	14,400	16,350	17,720	19,800	21,900	23,710
Camp Verde	3,824	——	——	——	——	——	——	——	5,940
Carefree	984	——	——	——	——	1,500	1,585	1,615	1,670
Casa Grande	14,971	15,205	15,440	15,550	15,600	15,695	17,490	18,035	18,685
Cave Creek	1,712	——	——	——	——	——	——	2,410	2,580
Chandler	29,673	32,930	36,365	40,640	48,535	60,725	72,910	77,225	81,690
Chino Valley	2,858	3,040	3,230	3,370	3,610	3,785	3,970	4,120	4,350
Clarkdale	1,512	1,530	1,550	1,585	1,610	1,640	1,860	2,085	2,130
Clifton	4,245	4,135	4,030	3,925	3,790	3,675	3,640	3,560	3,605
Colorado City	1,439	——	——	——	——	——	2,100	2,100	2,100
Coolidge	6,851	6,865	6,875	6,910	6,850	6,840	6,850	6,895	6,945
Cottonwood	4,550	4,675	4,725	4,795	4,950	5,055	5,215	5,370	5,435
Douglas	13,058	13,300	13,500	13,400	13,370	13,370	13,600	13,850	14,135
Duncan	603	600	595	600	595	600	600	600	605
Eagar	2,791	3,050	3,300	3,690	3,850	4,000	4,190	4,375	4,630
El Mirage	4,307	4,225	4,040	3,990	3,950	3,920	3,910	3,970	3,995
Eloy	6,240	6,150	6,040	6,025	5,960	5,860	5,910	5,940	6,100
Flagstaff	34,743	35,080	35,350	35,700	36,200	38,600	40,225	40,900	42,000
Florence	3,391	3,420	3,640	6,120	6,150	6,125	6,280	6,350	6,815
Fredonia	1,040	1,075	1,105	1,185	1,205	1,245	1,290	1,315	1,330

(Continued on page 6)

Since late last year, methods and techniques for estimating population in Arizona have been reviewed and revised. The new population estimates for the state, counties, and incorporated communities (above and page 6) are the result of those efforts and will be used by all state agencies.

Because of changed methods, the data have been revised back to the 1980 U.S. census. In nearly all cases, the changes were relatively small, but were important to ensure consistent data over time and between areas.

The estimates show a marked slowdown in Arizona's population growth the past several years, from a peak of 4.5 percent in 1985. In 1988, population growth was 2.6 percent. Maricopa County continues to dominate the state's other 14 counties, with 57.4 percent (2,035,500) of Arizona's population. And Greenlee County is the state's smallest county with 0.2 percent (8,700) of the total population.

Population estimates for 1989 will be prepared and reviewed this fall, with approved figures being released in December.

REVISED ARIZONA POPULATION ESTIMATES, 1981-88 (Cont.)

	1980*	1981	1982	1983	1984	1985	1986	1987	1988
Incorporated Places (Cont.)									
Gila Bend	1,585	1,700	1,785	1,830	1,910	1,980	2,000	2,005	2,005
Gilbert	5,717	5,925	6,130	6,390	8,370	11,355	14,355	16,770	20,395
Glendale	97,172	99,590	101,550	103,530	109,370	119,790	127,000	135,745	140,730
Globe	6,886	7,000	7,300	7,000	6,710	6,400	6,285	6,275	6,265
Goodyear	2,747	2,835	4,025	4,150	4,355	4,550	4,645	4,665	4,835
Guadalupe	4,506	4,530	4,550	4,570	4,580	4,600	4,650	4,720	4,800
Hayden	1,205	1,185	1,160	1,135	1,110	1,090	1,070	1,060	1,055
Holbrook	5,785	5,795	5,820	5,800	5,850	5,875	5,915	5,955	5,970
Huachuca City	1,661	1,785	1,900	1,960	2,050	2,070	2,170	2,175	2,215
Jerome	420	425	435	445	455	470	475	485	495
Kearny	2,646	2,570	2,510	2,470	2,400	2,415	2,430	2,455	2,500
Kingman	9,257	9,555	9,845	9,965	10,225	10,535	10,800	11,510	12,345
Lake Havasu City	15,909	16,650	17,350	17,400	17,675	18,400	19,075	19,775	21,060
Litchfield Park	3,657							3,835	4,055
Mammoth	1,906	1,900	1,900	1,885	1,875	1,775	1,800	1,850	1,875
Marana	1,674	1,665	1,650	1,640	1,630	1,615	2,000	2,260	2,510
Mesa	152,404	162,900	171,440	180,500	189,950	229,660	250,700	264,255	269,440
Miami	2,718	2,735	2,775	2,625	2,575	2,520	2,485	2,455	2,480
Nogales	15,683	15,805	15,930	16,075	16,180	16,230	16,465	16,710	16,725
Oro Valley	1,489	1,480	1,480	1,575	1,800	2,975	3,700	4,495	5,255
Page	4,907	5,260	5,615	5,940	6,340	6,600	6,820	7,055	7,190
Paradise Valley	11,085	11,250	11,435	11,440	11,450	11,500	11,740	11,735	11,880
Parker	2,542	2,540	2,530	2,520	2,510	2,500	2,800	2,970	3,035
Patagonia	980	1,005	1,030	1,045	1,050	1,065	1,100	1,110	1,115
Payson	5,068	5,500	5,925	6,235	6,620	7,040	7,350	7,420	7,940
Peoria	12,307	13,070	13,550	17,515	21,110	26,300	31,740	35,585	39,660
Phoenix	789,704	803,700	815,350	828,500	849,325	875,175	904,975	926,865	955,695
Pima	1,599	1,630	1,655	1,670	1,695	1,725	1,760	1,780	1,815
Pinetop-Lakeside	2,315	2,320	2,330	2,350	2,365	2,385	2,500	2,635	2,725
Prescott	19865	20,320	20,540	20,845	21,180	21,535	22,150	22,700	23,960
Prescott Valley	2,284	2,800	3,430	4,135	4,920	5,550	6,160	6,975	7,710
Safford	7,010	7,130	7,090	7,075	7,060	7,100	7,140	7,165	7,215
St. Johns	3,368	3,470	3,570	3,650	3,740	3,860	3,930	4,000	4,070
San Luis	1,946	2,120	2,290	2,370	2,575	2,740	3,000	3,500	3,935
Scottsdale	88,622	89,750	91,315	93,465	97,175	106,195	115,035	118,905	125,335
Sedona	5,319								7,325
Show Low	4,298	4,450	4,580	4,720	4,850	5,010	5,220	5,350	5,460
Sierra Vista	24,937	25,670	26,115	27,180	28,185	28,790	31,680	32,930	34,590
Snowflake	3,510	3,530	3,555	3,575	3,600	3,640	3,690	3,765	3,840
Somerton	3,969	4,125	4,235	4,340	4,325	4,350	4,510	4,580	4,640
South Tucson	6,554	6,450	6,400	6,300	6,200	6,040	6,030	6,510	6,535
Springerville	1,452	1,550	1,620	1,700	1,765	1,880	1995	2,045	2,125
Superior	4,600	4,530	4,470	4,300	4,270	4,220	4,200	4,210	4,230
Surprise	3,723	3,805	3,850	3,890	3,900	4,005	4,200	4,800	5,405
Taylor	1,915	1,930	1,945	1,960	1,970	1,990	2,015	2,030	2,040
Tempe	106,920	110,280	114,020	116,935	123,700	131,095	137,780	141,035	144,445
Thatcher	3,374	3,460	3,435	3,435	3,405	3,405	3,495	3,550	3,660
Tolleson	4,433	4,395	4,395	4,380	4,365	4,425	4,670	4,755	4,830
Tombstone	1,632	1,715	1,800	1,765	1,775	1,790	1,805	1,830	1,845
Tucson	330,537	337,125	343,790	345,730	355,810	360,855	369,475	382,725	397,300
Wellton	911	915	910	895	920	920	950	975	995
Wickenburg	3,535	3,570	3,615	3,665	3,810	3,895	4,000	4,035	4,065
Willcox	3,243	3,310	3,380	3,400	3,445	3,480	3,510	3,575	3,660
Williams	2,266	2,310	2,350	2,355	2,355	2,360	2,370	2,375	2,420
Winkelman	1,060	1,105	1,150	1,100	1,050	1,000	995	970	970
Winslow	7,921	8,050	8,190	8,300	8,500	8,700	8,750	8,810	8,835
Youngtown	2,254	2,255	2,245	2,250	2,280	2,285	2,315	2,375	2,385
Yuma	42,481	43,325	44,145	44,915	45,960	46,455	48,500	49,550	50,755

* All data, except 1980, are based on July 1 of that year. 1980 data are U.S. census figures, which are based on April 1 data.

Notes: Data prior to 1988 were revised to be consistent with the 1980 U.S. census, the 1985 special census where appropriate, and 1988 approved estimates.

A dash (____) indicates a community was not incorporated during that year.

Source: Arizona Department of Economic Security, Office of the Director, April 1989; Table prepared by the Population Statistics Unit of DES, Research Administration.

OIS Publications Detail Job Service Activity

The Occupational Information System (OIS) of Arizona has released three reports on 1988 Department of Economic Security Job Service activity.

The data are presented by Dictionary of Occupational Titles (DOT) code, with separate publications for Maricopa and Pima counties, nonmetropolitan counties, and the state as a whole. The reports include data on applicants, Unemployment Insurance claimants, Job Service openings, and average hourly wages.

New OIS Reports

- OIS Report 89-7-ST: 1988 Job Service Data -- Statewide
- OIS Report 89-7-MP: 1988 Job Service Data -- Maricopa and Pima Counties
- OIS Report 89-7-BOX: 1988 Job service Data -- All Counties Except Maricopa

In each publication, the related Standard Occupational Classification (SOC) and OIS Cluster codes are shown for each DOT occupation. Using these codes, the following additional information is available through the MICRO OIS data base.*

--one-page career profile printout for a SOC occupation, which includes the specified DOT occupation.

--supply-demand report for the OIS cluster code, which includes the specified DOT code.

In addition to the SOC and OIS codes, the OIS reports also include the Guide for Occupational Exploration (GOE) code, which identifies the interest and work areas associated with the DOT occupation.

For more information about the MICRO OIS and other OIS data, contact Hugo H. Soll, Ph.D., Manager, OIS of Arizona, Site Code 897J, P.O. Box 6123, Phoenix, Arizona 85005; (602) 542-3680.

**The MICRO OIS is a microcomputer data base designed to serve the needs of career counselors and vocational planners in Arizona's high schools and community colleges. The MICRO OIS is available at no cost to public and nonprofit institutions.*

LMI Publications -- Hot off the Press

The following revised publications prepared by DES, Research Administration can be ordered by writing to the address on the back of this newsletter or by calling (602) 542-3871. One copy of each publication will be sent at no charge. Multiple copies are available at a nominal charge. DES offices can order directly from supply.

The latest edition of *Jobs for Which You Can Qualify If You're Not a High School Graduate* (PAL-114) is available. This publication is one of a series of books describing occupations available to persons who lack a high school degree and with various educational backgrounds.

Included in each book are job requirements; information on talents, aptitudes, and interests that these

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(Continued from page 7)

occupations demand; and the national employment outlook for these jobs through the mid-1990s. An added feature in this edition is a table on employment opportunities within Arizona.

The 1989-1990 edition of the *Annual Planning Information (API)* guide (PAL-327) contains projections for population, labor force, persons in poverty, limited English-proficient population, and persons with work disabilities.

Current data on veterans, offenders, Unemployment Insurance recipients, and other groups are also included. Many of the tables are broken down by age, sex, race, and Hispanic ethnicity.

Since the publication was designed primarily for the Job Training Partnership Act (JTPA) program, much of the data are arranged for the state as a whole and by JTPA Service Delivery Area. Some of the information is by county.

The *API* guide can be used for program planning and evaluation, resource allocation, job development, and vocational counseling. Supplements covering unskilled workers and high school dropouts are available on request.

The *1988 Employer Wage Survey* provides wage data on occupations at companies employing at least 50 workers. The publication details: hourly low, high, and weighted-average wages; fringe benefits; and occupational definitions.

Separate books are available for Maricopa (PAL-338) and Pima (PAL-341) counties, plus additional wage data sheets are available for the categories, nonmetropolitan counties, and state as a whole.

Fringe-benefit data and part of the wage data are based on the Joint Governmental Salary and Benefits Survey conducted by the Arizona Department of Administration, Personnel Division. Other wage data are from a survey by DES, Research Administration.

Creation of Research Administration Simplifies Data-Gathering Process

(Continued from page 4)

Statistics. This unit prepares the official population estimates and projections for the state and counties, plus coordinates the U.S. Census Bureau's State Data Center program. In addition to population figures, the State Data Center also compiles information from the U.S. Census Bureau on Arizona housing, industry and government.

While meshing a variety of research programs into a cohesive unit has not been easy, Anderson believes RA has, for the most part, fulfilled its initial goals.

"(Research Administration) has had its ups and downs, but I think it has been worth it," Anderson wrote last year in a letter to another state considering forming a similar organization. "The professional level of the staff has improved and our credibility in the community has soared.

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"As much as anything, the organizational change has produced a real change in attitudes. Instead of a numbers-in-boxes approach to work, the staff sees how their work impacts not only on other activities in Research, but how it is used in the network of users that has developed."

The May issue of the Arizona LMI Newsletter will focus on RA's Economic Analysis unit.

--Brent Fine

The Arizona Labor Force in February

Arizona's unemployment rate climbed 0.2 percent to 5.9 percent in February.

While February brought above-average labor force growth (22,700) in Arizona, the rate of job creation was only average, at 1.3 percent or 18,000 wage and salary jobs. The genuinely good news, however, was that only one industry continued to lose jobs in the state, unlike in January when five out of eight major industry groups posted losses.

Construction dropped another 700 jobs, continuing its downward path from peak employment in July 1986. But Finance, Insurance, and Real Estate (FIRE), which had joined Construction's decline, posted a gain of 200.

FIRE employment peaked at 95,600 in July 1987 and has been losing jobs continuously since March 1988. Nevertheless, February's turn is unlikely to hold, since interest rates are still climbing. Construction and FIRE are expected to continue losing employment until interest rates decline.

Manufacturing, too, has been losing employment each month since at least September 1988, but posted a gain of 300 in February. Most of the increase was in nondurable goods, primarily printers. Among durable-goods manufacturers, nonelectrical machinery (which includes computer makers) also posted gains. All of the employment gain in Manufacturing was in Maricopa County; enough, in fact, to counterbalance losses in Pima and the nonmetropolitan counties.

Research Administration expects more job growth in Manufacturing over the year. Recent announcements from Tucson promise a near reversal of the Pima County manufacturing decline.

Trade was the star performer for the month, adding 2,000 jobs, an unseasonably high number. The average February gain during the last five years has been 600 jobs.

Both wholesale trade and retail trade had better-than-average performances. Wholesale trade added 600 jobs, or twice the usual number. Retail trade came in strong with 1,400 new jobs, about 1,000 above the average February gain.

Although eating and drinking places had most of the actual gain (1,900), it was department stores that made the difference in the retail industry group. Department stores lost 800 jobs, but that was 1,000 fewer than its average losses for the month.

Trade's greater-than-average February gain was partially counterbalanced by Services' less-than-average gain. Services added 3,800 jobs,

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Arizona Labor Force and Employment

February 1989 (in thousands)

	Arizona				
				Amount Change	
	Feb.* 1989	Jan. 1989	Feb. 1988	Jan.- Feb.	1988- 1989
TOTAL CIVILIAN LABOR FORCE**	1684.9	1662.2	1613.1	+22.7	+71.8
Total Unemployment	98.7	95.2	90.1	+3.5	+8.6
Rate	5.9	5.7	5.6	----	----
Rate (Sea. Adj.)***	5.9	5.7	5.6	----	----
Total Employment	1586.2	1567.0	1523.0	+19.2	+63.2

The Above Labor Force Statistics Shou

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1427.9	1409.9	1413.0	+18.0	+14.9
Manufacturing	189.2	188.9	188.1	+0.3	+1.1
Durable Goods	145.6	145.7	145.4	-0.1	+0.2
Stone, Clay, and Glass	7.4	7.5	7.7	-0.1	-0.3
Primary and Fabricated Metals	15.9	15.8	15.4	+0.1	+0.5
Primary Metals	7.7	7.6	7.4	+0.1	+0.3
Fabricated Metals	8.2	8.2	8.0	+0.0	+0.2
Machinery	65.4	65.4	66.0	+0.0	-0.6
Other Durable Goods	56.9	57.0	56.3	-0.1	+0.6
Aircraft and Missiles	26.2	26.2	26.6	+0.0	-0.4
Lumber and Wood Product (Excluding Furniture)	8.2	8.4	7.8	-0.2	+0.4
All Other Durable Goods	22.5	22.4	21.9	+0.1	+0.6
Nondurable Goods	43.6	43.2	42.7	+0.4	+0.9
Food and Kindred Products	9.2	9.2	9.1	+0.0	+0.1
Apparel	4.6	4.5	4.7	+0.1	-0.1
Printing and Publishing	16.9	16.7	16.6	+0.2	+0.3
All Other Nondurable Goods	12.9	12.8	12.3	+0.1	+0.6
Mining and Quarrying	12.3	12.2	11.7	+0.1	+0.6
Copper Mining	9.1	9.0	8.7	+0.1	+0.4
Other Mining and Quarrying	3.2	3.2	3.0	+0.0	+0.2
Construction	88.6	89.3	92.3	-0.7	-3.7
Trans., Communications, & Public Utilities	72.8	72.3	73.4	+0.5	-0.6
Transportation	36.2	36.3	36.9	-0.1	-0.7
Communications and Public Utilities	36.6	36.0	36.5	+0.6	+0.1
Trade	354.8	352.8	347.0	+2.0	+7.8
Wholesale Trade	68.9	68.3	67.9	+0.6	+1.0
Retail Trade	285.9	284.5	279.1	+1.4	+6.8
General Merchandise and Apparel	43.9	44.7	42.5	-0.8	+1.4
Food Stores	48.0	47.9	46.2	+0.1	+1.8
Automotive and Service Stations	34.8	34.6	33.2	+0.2	+1.6
Eating and Drinking Places	100.3	98.4	99.0	+1.9	+1.3
Other Retail Trade	58.9	58.9	58.2	+0.0	+0.7
Finance, Insurance, and Real Estate	91.2	91.0	94.3	+0.2	-3.1
Services and Miscellaneous	366.5	362.7	360.6	+3.8	+5.9
Hotels and Other Lodging Places	41.7	41.2	40.2	+0.5	+1.5
Business Services	77.3	76.1	77.8	+1.2	-0.5
Health Services	92.2	91.8	89.9	+0.4	+2.3
Other Services	155.3	153.6	152.7	+1.7	+2.6
Government	252.5	240.7	245.6	+11.8	+6.9
Federal	43.3	43.5	43.0	-0.2	+0.3
State and Local	209.2	197.2	202.6	+12.0	+6.6
School	119.8	108.6	118.6	+11.2	+1.2

* Preliminary

** Labor force, unemployment, and employment are reported by place of residence.

*** Normal seasonal variations have been eliminated to reflect underlying economic trends.

February 1989 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			Amount Change					Amount Change	
Feb.* 1989	Jan. 1989	Feb. 1988	Jan.- Feb.	1988- 1989	Feb.* 1989	Jan. 1989	Feb. 1988	Jan.- Feb.	1988- 1989
1043.0	1030.0	1002.6	+13.0	+40.4	319.0	314.2	305.5	+4.8	+13.5
50.3	49.4	46.4	+0.9	+3.9	16.1	14.8	14.3	+1.3	+1.8
4.8	4.8	4.6	---	---	5.0	4.7	4.7	---	---
4.8	4.7	4.6	---	---	5.0	4.6	4.6	---	---
992.7	980.6	956.2	+12.1	+36.5	302.9	299.4	291.2	+3.5	+11.7
Not Be Used for Economic Assistance Programs									
NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK									
939.6	929.0	933.0	+10.6	+6.6	250.9	248.2	249.5	+2.7	+1.4
138.3	137.9	136.9	+0.4	+1.4	29.5	29.7	30.8	-0.2	-1.3
108.0	107.8	106.8	+0.2	+1.2	23.7	23.9	25.1	-0.2	-1.4
4.9	5.0	5.0	-0.1	-0.1					
10.5	10.4	10.3	+0.1	+0.2					
52.6	52.4	52.6	+0.2	+0.0					
40.0	40.0	38.9	+0.0	+1.1					
30.3	30.1	30.1	+0.2	+0.2	5.8	5.8	5.7	+0.0	+0.1
5.9	5.9	6.0	+0.0	-0.1					
3.5	3.5	3.4	+0.0	+0.1					
11.9	11.7	11.9	+0.2	+0.0					
9.0	9.0	8.8	+0.0	+0.2					
0.7	0.7	0.8	+0.0	-0.1	2.0	2.0	1.7	+0.0	+0.3
61.1	61.6	63.5	-0.5	-2.4	16.0	16.1	17.2	-0.1	-1.2
50.4	50.3	50.6	+0.1	-0.2	9.0	9.0	9.3	+0.0	-0.3
26.9	26.9	26.8	+0.0	+0.1	4.5	4.5	4.8	+0.0	-0.3
23.5	23.4	23.8	+0.1	-0.3	4.5	4.5	4.5	+0.0	+0.0
240.5	239.0	235.9	+1.5	+4.6	57.7	57.5	56.7	+0.2	+1.0
55.0	54.8	54.0	+0.2	+1.0	6.9	6.8	6.9	+0.1	+0.0
185.5	184.2	181.9	+1.3	+3.6	50.8	50.7	49.8	+0.1	+1.0
27.8	28.2	27.8	-0.4	+0.0	7.5	7.7	7.3	-0.2	+0.2
31.4	31.2	29.7	+0.2	+1.7	8.0	8.1	8.1	-0.1	-0.1
22.2	22.0	20.8	+0.2	+1.4	5.5	5.5	5.4	+0.0	+0.1
64.6	63.2	63.8	+1.4	+0.8	18.5	18.2	18.5	+0.3	+0.0
39.5	39.6	39.8	-0.1	-0.3	11.3	11.2	10.5	+0.1	+0.8
72.8	72.6	75.1	+0.2	-2.3	11.7	11.8	12.3	-0.1	-0.6
246.7	244.1	243.5	+2.6	+3.2	69.7	68.8	68.5	+0.9	+1.2
25.3	25.0	23.9	+0.3	+1.4	7.0	6.8	7.3	+0.2	-0.3
60.2	59.4	61.6	+0.8	-1.4	11.7	11.5	11.3	+0.2	+0.4
60.1	59.8	58.9	+0.3	+1.2	19.9	19.8	19.3	+0.1	+0.6
101.1	99.9	99.1	+1.2	+2.0	31.1	30.7	30.6	+0.4	+0.5
129.1	122.8	126.7	+6.3	+2.4	55.3	53.3	53.0	+2.0	+2.3

NOTE: Prepared by the Arizona Department of Economic Security, Research Administration, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

Nonmetropolitan Counties
Labor Force and Employment
February 1989

	Apache	Cochise	Coco-nino	Gila	Graham	Green-lee	La Paz
CIVILIAN LABOR FORCE*	15,275	35,000	42,850	12,675	8,400	2,975	5,475
Total Unemployment	2,500	2,750	3,775	1,525	750	250	500
Rate	16.4%	7.9%	8.8%	12.0%	8.9%	8.4%	9.1%
Rate (Seas. Adj.)**	15.9%	7.0%	8.5%	10.6%	8.3%	8.1%	8.2%
Total Employment	12,775	32,250	39,075	11,150	7,650	2,725	4,975
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS							
TOTAL WAGE AND SALARY	14,650	25,250	38,100	10,625	5,350	2,900	3,750
Manufacturing	775	1,250	2,700	1,325	200	75	350
Mining & Quarrying	50	100	150	1,300	0	1,575	125
Construction	650	825	1,350	600	225	200	200
T.C.P.U.	1,950	1,625	3,075	350	150	50	50
Trade	1,400	5,775	8,575	2,100	1,450	225	1,250
F.I.R.E.	300	700	750	275	100	25	100
Services & Misc.	4,200	4,825	9,550	2,050	900	150	900
Government	5,325	10,150	11,950	2,625	2,325	600	775

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
CIVILIAN LABOR FORCE*	32,150	26,650	39,275	10,700	37,325	54,175
Total Unemployment	1,875	3,675	3,100	1,175	2,525	7,900
Rate	5.8%	13.8%	7.9%	11.0%	6.8%	14.6%
Rate (Seas. Adj.)**	5.2%	12.7%	7.7%	15.8%	5.9%	22.5%
Total Employment	30,275	22,975	36,175	9,525	34,800	46,275
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS						
TOTAL WAGE AND SALARY	22,550	19,525	31,225	10,000	25,100	28,350
Manufacturing	2,950	1,875	4,175	1,325	2,175	2,200
Mining & Quarrying	200	1,150	3,700	0	1,100	50
Construction	1,775	800	1,425	350	1,875	1,325
T.C.P.U.	1,125	1,700	925	550	900	1,025
Trade	6,700	3,750	5,525	4,150	6,750	8,850
F.I.R.E.	1,000	375	800	275	950	1,050
Services & Misc.	5,100	4,525	4,350	1,650	5,650	6,275
Government	3,700	5,350	10,325	1,700	5,700	7,575

* Adjusted to the Current Population Survey (CPS) to reflect place of residence.

** Seasonal adjustment not applicable for economic assistance programs.

T.C.P.U. = Transportation, Communications, and Public Utilities
F.I.R.E. = Finance, Insurance, and Real Estate

Prepared in conjunction with the U.S. Department of Labor, Bureau of Labor Statistics.

Estimated Hours and Earnings of Production Workers in Selected Industries Arizona

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	Feb.* 1989	Jan. 1989	Feb. 1988	Feb.* 1989	Jan. 1989	Feb. 1988	Feb.* 1989	Jan. 1989	Feb. 1988
Manufacturing	406.07	402.46	398.37	41.1	40.9	40.9	9.88	9.84	9.74
Aircraft & Missiles	603.46	592.30	INA	44.8	44.5	INA	13.47	13.31	INA
Food & Kindred Prod.	337.82	345.02	361.17	40.8	40.4	39.3	8.28	8.54	9.19
Primary Metals	503.88	505.72	451.91	39.0	40.2	38.2	12.92	12.58	11.83
Machinery	404.00	395.20	403.66	40.4	40.0	41.7	10.00	9.88	9.68
Copper Mining	533.39	544.83	511.70	41.9	42.9	41.5	12.73	12.70	12.33
Construction	420.79	415.24	419.37	35.6	35.4	35.6	11.82	11.73	11.78
Utilities	699.37	674.00	613.30	45.8	43.4	41.3	15.27	15.53	14.85
Retail Trade**	246.78	240.96	244.94	32.6	32.0	32.4	7.57	7.53	7.56
Wholesale Trade	377.45	367.09	384.54	39.9	38.6	39.0	9.46	9.51	9.86

Estimated Hours and Earnings of Production Workers in Selected Industries Maricopa County

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	Feb.* 1989	Jan. 1989	Feb. 1988	Feb.* 1989	Jan. 1989	Feb. 1988	Feb.* 1989	Jan. 1989	Feb. 1988
Manufacturing	438.24	430.35	432.63	41.5	41.3	41.4	10.56	10.42	10.45
Construction	442.38	436.69	432.18	36.5	36.3	35.6	12.12	12.03	12.14
Retail Trade**	270.61	267.87	268.59	33.7	33.4	33.2	8.03	8.02	8.09
Wholesale Trade	387.30	384.54	404.79	39.4	39.0	39.3	9.83	9.86	10.30

Estimated Hours and Earnings of Production Workers in Selected Industries Pima County

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	Feb.* 1989	Jan. 1989	Feb. 1988	Feb.* 1989	Jan. 1989	Feb. 1988	Feb.* 1989	Jan. 1989	Feb. 1988
Manufacturing	369.02	369.40	374.79	38.6	38.6	39.0	9.56	9.57	9,61
Copper Mining	595.95	615.55	539.75	43.5	44.8	42.3	13.70	13.74	12.76
Construction	388.98	386.45	369.60	36.8	36.7	35.2	10.57	10.53	10.50
Utilities	585.62	599.65	580.03	41.8	41.1	42.4	14.01	14.59	13.68

* Preliminary
** Excludes eating and drinking places

NOTE: These estimates are based on a sample of full-time and part-time production and related employees whose payroll and hours are reported for the pay period that includes the 12th of the month. Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.